

IFWO

RAW SEQUENCE LISTING

DATE: 08/05/2004

PATENT APPLICATION: US/10/717,473

TIME: 08:55:45

Input Set : N:\Crf3\RULE60\10717473.raw Output Set: N:\CRF4\08052004\J717473.raw

SEQUENCE LISTING

```
(1) GENERAL INFORMATION:
             (i) APPLICANT: WEI, Ying-Fei
            (ii) TITLE OF INVENTION: Transforming Growth Factor
      7
                                      Alpha HIII
      8
      9
           (iii) NUMBER OF SEQUENCES: 10
            (iv) CORRESPONDENCE ADDRESS:
     10
     11
                   (A) ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
                                  Cecchi, Stewart & Olstein
     12
                   (B) STREET: 6 Becker Farm Road
     13
                   (C) CITY: Roseland
     14
                   (D) STATE: NJ
     15
                   (E) COUNTRY: USA
     16
                   (F) ZIP: 07068-1739
     17
             (v) COMPUTER READABLE FORM:
     19
                   (A) MEDIUM TYPE: Floppy disk
     20
                   (B) COMPUTER: IBM PC compatible
     21
                   (C) OPERATING SYSTEM: PC-DOS/MS-DOS
     22
                   (D) SOFTWARE: WordPerfect 5.1, Dos Text File
     23
            (vi) CURRENT APPLICATION DATA:
     25
                   (A) APPLICATION NUMBER: US/10/717,473
C--> 26
                   (B) FILING DATE: 21-Oct-2003
C --> 27
                   (C) CLASSIFICATION: 435
W - - > 33
     35
           (vii) PRIOR APPLICATION DATA:
                   (A) APPLICATION NUMBER: US/08/778,545
     31
     32
                   (B) FILING DATE: January 3, 1997
                   (A) APPLICATION NUMBER: 60/011,136
     36
     37
                   (B) FILING DATE: January 4, 1996
     40
          (viii) ATTORNEY/AGENT INFORMATION:
                   (A) NAME: MULLINS, J.G.
     41
                   (B) REGISTRATION NUMBER: 33,073
     42
                   (C) REFERENCE/DOCKET NUMBER: 325800-541 (PF 220)
     43
             (ix) TELECOMMUNICATION INFORMATION:
     45
                   (A) TELEPHONE: 201-994-1700
     46
                   (B) TELEFAX: 201-994-1744
     47
        (2) INFORMATION FOR SEQ ID NO: 1:
     49
             (i) SEQUENCE CHARACTERISTICS:
     51
                   (A) LENGTH: 923 base pairs
     52
                   (B) TYPE: nucleic acid
     53
                   (C) STRANDEDNESS: double
     54
                   (D) TOPOLOGY: linear
     55
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57

60

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

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Input Set : N:\Crf3\RULE60\10717473.raw
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71 Pro Glu Ile Cys Thr Gln Cys Pro Gly Ser Val Gln Asn Leu Ser Lys 72 10 15 20	49 97 .45 .93
64 -25 -20 -15 66 GCT GCC GCC CTG CTC CTC GCT CTG GGC GTG GAA AGG GCT CTG GCG CTA 67 Ala Ala Ala Leu Leu Leu Ala Leu Gly Val Glu Arg Ala Leu Ala Leu W> 68 -10 -5 1 5 70 CCC GAG ATA TGC ACC CAA TGT CCA GGG AGC GTG CAA AAT TTG TCA AAA 71 Pro Glu Ile Cys Thr Gln Cys Pro Gly Ser Val Gln Asn Leu Ser Lys 72 10 15 20 74 GTG GCC TTT TAT TGT AAA ACG ACA CGA GAG CTA ATG CTG CAT GCC CGT	.45 .93
66 GCT GCC GCC CTG CTC CTC GCT CTG GGC GTG GAA AGG GCT CTG GCG CTA 67 Ala Ala Ala Leu Leu Leu Ala Leu Gly Val Glu Arg Ala Leu Ala Leu W> 68	.45 .93
 67 Ala Ala Ala Leu Leu Leu Ala Leu Gly Val Glu Arg Ala Leu Ala Leu W> 68 -10 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5	.45 .93
W> 68	93
70 CCC GAG ATA TGC ACC CAA TGT CCA GGG AGC GTG CAA AAT TTG TCA AAA 71 Pro Glu Ile Cys Thr Gln Cys Pro Gly Ser Val Gln Asn Leu Ser Lys 72 10 15 20 74 GTG GCC TTT TAT TGT AAA ACG ACA CGA GAG CTA ATG CTG CAT GCC CGT	93
71 Pro Glu Ile Cys Thr Gln Cys Pro Gly Ser Val Gln Asn Leu Ser Lys 72 10 15 20 74 GTG GCC TTT TAT TGT AAA ACG ACA CGA GAG CTA ATG CTG CAT GCC CGT	93
72 10 15 20 74 GTG GCC TTT TAT TGT AAA ACG ACA CGA GAG CTA ATG CTG CAT GCC CGT	241
74 GTG GCC TTT TAT TGT AAA ACG ACA CGA GAG CTA ATG CTG CAT GCC CGT	241
	241
75 Val Ala Pile IVI CVS DVS IIII IIII ALG GIU DEU NEC DEU IIIS AIG ALG	
76 25 30 35	
79 Cys Cys Leu Asn Gln Lys Gly Thr Ile Leu Gly Leu Asp Leu Gln Asn	89
80 40 45 50	89
**	
83 Cys Ser Leu Glu Asp Pro Gly Pro Asn Phe His Gln Ala His Thr	
84 55 60 65 70	
	37
87 Val Ile Ile Asp Leu Gln Ala Asn Pro Leu Lys Gly Asp Leu Ala Asn	
88 75 80 85	
90 ACC TTC CGT GGC TTT ACT CAG CTC CAG ACT CTG ATA CTG CCA CAA CAT	85
91 Thr Phe Arg Gly Phe Thr Gln Leu Gln Thr Leu Ile Leu Pro Gln His	
92 90 95 100	
94 GTC AAC TGT CCT GGA GGA ATT AAT GCC TGG AAT ACT ATC ACC TCT TAT	33
95 Val Asn Cys Pro Gly Gly Ile Asn Ala Trp Asn Thr Ile Thr Ser Tyr	
96 105 110 115	
	81
99 Ile Asp Asn Gln Ile Cys Gln Gly Gln Lys Asn Leu Cys Asn Asn Thr	
100 120 125 130	500
102 GGG GAC CCA GAA ATG TGT CCT GAG AAT GGA TCT TGT GTA CCT GAT GGT	529
103 Gly Asp Pro Glu Met Cys Pro Glu Asn Gly Ser Cys Val Pro Asp Gly	
104 135 140 145 150 106 CCA GGT CTT TTG CAG TGT GTT TGT GCT GAT GGT TTC CAT GGA TAC AAG	577
100 CCA GGI CII IIG CAG IGI GII IGI GCI GAI GGI IIC CAI GGA IAC AAG	211
107 F10 GIY hed ded GIN Cys Val Cys Ala Asp GIY FNe HIS GIY IYI BYS 108 155 160 165	
110 TGT ATG CGC CAG GGC TCG TTC TCA CTG CTT ATG TTC TTC GGG ATT CTG	625
111 Cys Met Arg Gln Gly Ser Phe Ser Leu Leu Met Phe Phe Gly Ile Leu	023
112 170 175 180	
114 GGA GCC ACC ACT CTA TCC GTC TCC ATT CTG CTT TGG GCG ACC CAG CGC	673
115 Gly Ala Thr Thr Leu Ser Val Ser Ile Leu Leu Trp Ala Thr Gln Arg	
116 185 190 195	
118 CGA AAA GCC AAG ACT TCA TGAACTACAT AGGTCTTACC ATTGACCTAA	721
119 Arg Lys Ala Lys Thr Ser	
120 200	
122 GATCAATCTG AACTATCTTA GCCCAGTCAG GGAGCTCTGC TTCCTAGAAA GGCATCTTTC	781
124 GCCAGTGGAT TCGCCTCAAG GTTGAGGCCG CCATTGGAAG ATGAAAAATT GCACTCCCTT	841
126 GGTGTAGACA AATACCAGTT CCCATTGGTG TTGTTGCCTA TAATAAACAC TTTTTTCTTT	901
128 TTTAAAAAA AAAAAAAAA AA	923

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Input Set : N:\Crf3\RULE60\10717473.raw
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```
130 (2) INFORMATION FOR SEQ ID NO: 2:
       (i) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 229 amino acids
133
134
              (B) TYPE: amino acid
             (D) TOPOLOGY: linear
135
        (ii) MOLECULE TYPE: protein
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
141 Met Ala Pro His Gly Pro Gly Ser Leu Thr Thr Leu Val Pro Trp Ala
                                            -15
                       -20
142 -25
144 Ala Ala Leu Leu Leu Ala Leu Gly Val Glu Arg Ala Leu Ala Leu Pro
                     - 5
                                          1 /
145
147 Glu Ile Cys Thr Gln Cys Pro Gly Ser Val Gln Asn Leu Ser Lys Val
           10
                                15
150 Ala Phe Tyr Cys Lys Thr Thr Arg Glu Leu Met Leu His Ala Arg Cys
                            30
153 Cys Leu Asn Gln Lys Gly Thr Ile Leu Gly Leu Asp Leu Gln Asn Cys
                                            50
                        45
156 Ser Leu Glu Asp Pro Gly Pro Asn Phe His Gln Ala His Thr Thr Val
                                         65
                    60
159 Ile Ile Asp Leu Gln Ala Asn Pro Leu Lys Gly Asp Leu Ala Asn Thr
                75
                                     8.0
162 Phe Arg Gly Phe Thr Gln Leu Gln Thr Leu Ile Leu Pro Gln His Val
                                 95
            90
163
165 Asn Cys Pro Gly Gly Ile Asn Ala Trp Asn Thr Ile Thr Ser Tyr Ile
                            110
                                                115
    105
168 Asp Asn Gln Ile Cys Gln Gly Gln Lys Asn Leu Cys Asn Asn Thr Gly
                                            130
                       125
171 Asp Pro Glu Met Cys Pro Glu Asn Gly Ser Cys Val Pro Asp Gly Pro
                                       145
                   140
174 Gly Leu Leu Gln Cys Val Cys Ala Asp Gly Phe His Gly Tyr Lys Cys
                                   160
               155
177 Met Arg Gln Gly Ser Phe Ser Leu Leu Met Phe Phe Gly Ile Leu Gly
                            175
                                                    180
178
    170
180 Ala Thr Thr Leu Ser Val Ser Ile Leu Leu Trp Ala Thr Gln Arg Arg
                            190
                                                195
      185
183 Lys Ala Lys Thr Ser
184 200
187 (2) INFORMATION FOR SEQ ID NO: 3:
        (i) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 27 base pairs
190
              (B) TYPE: nucleic acid
191
              (C) STRANDEDNESS: single
              (D) TOPOLOGY: linear
193
       (ii) MOLECULE TYPE: DNA (genomic)
195
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
197
199 CGCGGATCCG GGCAAAAGAA CCTTTGC
202 (2) INFORMATION FOR SEQ ID NO: 4:
       (i) SEQUENCE CHARACTERISTICS:
204
             (A) LENGTH: 30 base pairs
205
```

27

DATE: 08/05/2004 RAW SEQUENCE LISTING PATENT APPLICATION: US/10/717,473 TIME: 08:55:45 Input Set : N:\Crf3\RULE60\10717473.raw Output Set: N:\CRF4\08052004\J717473.raw (B) TYPE: nucleic acid 206 207 (C) STRANDEDNESS: single 208 (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA (genomic) 210 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4: 212 3.0 214 GCGTCTAGAC TAAAGCAGTG AGAACGAGCC 217 (2) INFORMATION FOR SEQ ID NO: 5: (i) SEQUENCE CHARACTERISTICS: 219 (A) LENGTH: 34 base pairs 220 221 (B) TYPE: nucleic acid 222 (C) STRANDEDNESS: single (D) TOPOLOGY: linear 223 (ii) MOLECULE TYPE: DNA (genomic) 225 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5: 227 34 229 CGCGGATCCG TCCATCATGG CGCCTCACGG CCCG 232 (2) INFORMATION FOR SEQ ID NO: 6: (i) SEQUENCE CHARACTERISTICS: 234 (A) LENGTH: 33 base pairs 235 (B) TYPE: nucleic acid 236 237 (C) STRANDEDNESS: single 238 (D) TOPOLOGY: linear 240 (ii) MOLECULE TYPE: DNA (genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 242 33 244 GCGTCTAGAC TACATAAGCA GTGAGAACGA GCC 248 (2) INFORMATION FOR SEQ ID NO: 7: (i) SEQUENCE CHARACTERISTICS: 250 (A) LENGTH: 28 base pairs 251 252 (B) TYPE: nucleic acid (C) STRANDEDNESS: single 253 (D) TOPOLOGY: linear 254 (ii) MOLECULE TYPE: DNA (genomic) 256 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 28 260 CGCGGATCCC GGGCAAAAGA ACCTTTGC 263 (2) INFORMATION FOR SEQ ID NO: 8: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 33 base pairs 266 (B) TYPE: nucleic acid 267 (C) STRANDEDNESS: single 268 269 (D) TOPOLOGY: linear 271 (ii) MOLECULE TYPE: DNA (genomic) (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 273 33 275 GCGTCTAGAC TACATAAGCA GTGAGAACGA GCC 278 (2) INFORMATION FOR SEQ ID NO: 9: (i) SEQUENCE CHARACTERISTICS: 280 (A) LENGTH: 30 base pairs 281 282 (B) TYPE: nucleic acid (C) STRANDEDNESS: single 283 (D) TOPOLOGY: linear 284 286 (ii) MOLECULE TYPE: DNA (genomic)

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Output Set: N:\CRF4\08052004\J717473.raw

288	(xi) SE	EQUENCE	DESCR.	IPTIC	$: \mathbf{NC}$	SEQ :	ID NO	D: 9:	:					
290 GC	GCTCAGAC	ATAAGCA	GTG A	GAAC	GAGC	C								30
293 (2) INFORMA	ATION FO	R SEQ	ID 1	10:	10:								
295	(i) SI	EQUENCE	CHARA	CTERI	ISTI	CS:								
296	296 (A) LENGTH: 52 amino acids													
297	(B) TYPE: amino acid													
298		(C) STRA	NDEDN:	ESS:	sing	gle								
299		(D) TOPO	LOGY:	line	ear									
301	(ii) M(DLECULE	TYPE:	prot	cein									
303	(xi) SE	EQUENCE	DESCR:	IPTIC	N: S	SEQ :	ID NO): 10):					
305 Gl	n Gly Let	ı Asn Ly	s Cys	Asn	Asn	Thr	Gly	Asp	Pro	Glu	Met	Cys	Pro	
306	1		5				10)				19	5	
308 Gl	u Asn Gly	/ Ser Cy	s Val	Pro	Asp	Gly	Pro	Gly	Leu	Leu	Gln	Cys	Val	
309		20				25					30			
311 Cy	s Ala Asp	Gly Ph	e His	Gly	Tyr	Lys	Cys	Met	Arg	Gln	Gly	Ser	Phe	
312	3.5	5			40					45				
314 Se	r Leu Leu	ı Met												
315	50													

VERIFICATION SUMMARY

DATE: 08/05/2004 TIME: 08:55:46

PATENT APPLICATION: US/10/717,473

Input Set : N:\Crf3\RULE60\10717473.raw

Output Set: N:\Crf4\08052004\J717473.raw

L:26 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:27 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:33 M:238 W: Alpha Fields not Ordered, Reordered [(C) CLASSIFICATION:] of (1)(vi)

 $L:68\ M:336\ W:$ Invalid Amino Acid Number in Coding Region, SEQ ID:1